



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/382,702
Filing Date: August 24, 1999
Appellant(s): HOCHSTEIN, PETER ANTHONY

David M. Quinlan
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/22/09 appealing from the Office action
mailed 1/22/09.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

NEW GROUND(S) OF REJECTION

The new grounds refers to the rebuttal of the 132 affidavit originally filed on 4/13/07.

/John W. Cabeca/

John Cabeca

Director, Technology Center 2800

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,463,280	JOHNSON	10-1995
5,661,645	HOCHSTEIN	08-1997
5,075,601	HILDEBRAND	12-1991

Brown, M. "Power Supply Cookbook" (1994), pp. 195-225

Motorola Data Sheet for Power Factor Controllers MC34261 (1996), pp. 1-12

Applicant's admitted prior art Figure 1 of present Application.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28, 32 (independent) and the multiple dependent/dependent claims 37, 38, 41, 42, 46, 47, 49 and 50 under 35 U.S.C. 103(a) as being unpatentable over Johnson (USP 5,463,280) in view of Power Supply Cookbook and the Motorola data sheet for the MC 34261 controller in view of Applicant Prior Art (APA) and further in view of and in view of Hildebrand (USP 5,075,601).

Johnson discloses the claimed invention (see figure 8) an AC input (102), a rectifier (108), a switching power supply (106) for use with an LED diode array (110), except for the use of electromagnetic interference filter and having a switch mode power supply coupled to the output of the rectifier for maintaining current and voltage waveforms in phase with respect to variation in the input line (power factor correction circuitry), the LED array with multiple current paths and for their use in traffic, pedestrian or rail crossing signal housing and the switch mode power supply with power factor correction circuitry being an integrated circuit.

Applicant's Prior Art (APA) discloses that it is known in the art to make use of series-parallel LED array in a switching power supply having multiple current paths and for their use in traffic, pedestrian or rail crossing signal housing. See figure 1.

The Power Supply Cookbook and the Motorola data sheet for the MC 34261 controller discloses that it is known in the art to use an electromagnetic interference

filter for use with a switching power supply the use of electromagnetic interference filter and having a switch mode power supply coupled to the output of the rectifier for maintaining current and voltage waveforms in phase with respect to variation in the input line (power factor correction circuitry).

The Power Supply Cookbook also teaches the use of switch mode power supply with power factor correction circuitry being an integrated circuit.

Johnson in view of Power Supply Cookbook and Motorola data sheet and in view of Applicant's Prior Art (APA) discloses the claimed invention (see above paragraphs) except for the use of a conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist.

Hildebrand discloses that it is known in the art to provide the use of conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist. The Hildebrand circuit (see figure 1A) uses a Zener diode (CR5) in combination with transistor (Q2) and that those components correspond to the Zener diode (D5) and the transistor (Q 1) of the claimed clamp circuit's "voltage sensing means". Hildebrand circuit uses a transistor (Q3) in combination with resistor (R7) and that those components correspond to the transistor (Q2) and the resistor (R5) of the claimed conflict monitor circuit's "control load means". Then finally, the circuit when the traffic light is off, thereby preventing leakage current and that it completely removes this resistor (R7) from the circuit when the light is on. This operation corresponds to that of the claimed conflict monitor circuit, which places the resistor (R5) of its "control load

means" in the circuit when the light is off and then completely removes that resistor (R5) from the circuit when the light is on.

The court decisions **63 F. Supp. 2d 788; 1999 U.S. Dist. LEXIS 13116 from page 29**, column 2, second paragraph states *"This undisputed evidence suffices to show that the Hildebrand device is nearly identical in structure and function to the adaptive clamp circuit of claims 5 and 6. First of all, it shows that the Hildebrand device "clamps" within the meaning of the '645 patent, n34 That is, when voltage falls below a certain amount -- the Zener voltage of Hildebrand's Zener diode (CR5) -- that diode does not conduct and the leakage current is directed through resistor (R 7). Hildebrand, 6:23. Likewise, when the '645's voltage falls below a certain amount -- the Zener voltage of its Zener diode (D5) -- that diode does not conduct and ["111] leakage current is directed through resistor (R5). '645, 7:59-62. Second, the undisputed evidence also shows that the Hildebrand device is "adaptive" within the meaning of the '645 patent. When the Hildebrand light is on, its dynamic load circuit removes the resistor (RT), and when its light is off, it places the resistor (RT) in the circuit to clamp leakage. Hildebrand, 6:42-50; (Third Erickson Decl. at PP 33-34)."*

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the device of Johnson in view of Power Supply Cookbook and Motorola data sheet and provide an conflict monitor circuit as taught by Hildebrand, in order to lessen the effects of current leakage inherent to LED circuitry and have a more dynamic response to this recurring problem.

Claims 24 and multiple dependent/dependent claims 37, 38, 41, 42, 46, 47, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USP 5,463,280) in view of Applicant Prior Art (APA) and further in view of Hildebrand (USP 5,075,601).

Johnson discloses the claimed invention (see figure 8) an AC input (102), a rectifier (108), a switching power supply (106) for use with an LED diode array (110), except for the use of electromagnetic interference filter and having a switch mode power supply coupled to the output of the rectifier for maintaining current and voltage waveforms in phase with respect to variation in the input line (power factor correction circuitry), the LED array with multiple current paths and for their use in traffic, pedestrian or rail crossing signal housing and the switch mode power supply with power factor correction circuitry being an integrated circuit.

Applicant's Prior Art (APA) discloses that it is known in the art to make use of series-parallel LED array in a switching power supply having multiple current paths and for their use in traffic, pedestrian or rail crossing signal housing. See figure 1.

Johnson in view of Applicant's Prior Art (APA) discloses the claimed invention (see above paragraphs) except for the use of a conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist.

Hildebrand discloses that it is known in the art to provide the use of conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist. The Hildebrand circuit (see figure 1A) uses a Zener diode (CR5) in combination with transistor (Q2) and that those components correspond to the Zener diode (D5) and the transistor (Q 1) of the claimed clamp circuit's "voltage sensing means". Hildebrand circuit uses a transistor (Q3) in combination with resistor (R7) and that those components correspond to the transistor (Q2) and the resistor (R5) of the claimed conflict monitor circuit's "control load means". Then finally, the circuit when the traffic light is off, thereby preventing leakage current and that it completely removes this resistor (R7) from the circuit when the light is on. This operation corresponds to that of the claimed conflict monitor circuit, which places the resistor (R5) of its "control load means" in the circuit when the light is off and then completely removes that resistor (R5) from the circuit when the light is on.

The court decisions **63 F. Supp. 2d 788; 1999 U.S. Dist. LEXIS 13116 from page 29**, column 2, second paragraph states *"This undisputed evidence suffices to show that the Hildebrand device is nearly identical in structure and function to the adaptive clamp circuit of claims 5 and 6. First of all, it shows that the Hildebrand device "clamps" within the meaning of the '645 patent, n34 That is, when voltage falls below a certain amount -- the Zener voltage of Hildebrand's Zener diode (CR5) -- that diode does not conduct and the leakage current is directed through resistor (R 7). Hildebrand, 6:23. Likewise, when the '645's voltage falls below a certain amount -- the Zener voltage*

*of its Zener diode (D5) -- that diode does not conduct and [***111] leakage current is directed through resistor (R5). '645, 7:59-62. Second, the undisputed evidence also shows that the Hildebrand device is "adaptive" within the meaning of the '645 patent. When the Hildebrand light is on, its dynamic load circuit removes the resistor (RT), and when its light is off, it, places the resistor (RT) in the circuit to clamp leakage. Hildebrand, 6:42-50; (Third Erickson Decl. at PP 33-34)."*

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the device of Johnson in view of Power Supply Cookbook and Motorola data sheet and provide an conflict monitor circuit as taught by Hildebrand, in order to lessen the effects of current leakage inherent to LED circuitry and have a more dynamic response to this recurring problem.

Claims 44, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USP 5,463,280) in view of Hildebrand (USP 5,075,601).

Johnson discloses the claimed invention (see figure 8) an AC input (102), a rectifier (108), a switching power supply (106) for use with an LED diode array (110), except for the use of electromagnetic interference filter and having a switch mode power supply coupled to the output of the rectifier for maintaining current and voltage waveforms in phase with respect to variation in the input line (power factor correction circuitry), the LED array with multiple current paths and for their use in traffic, pedestrian

or rail crossing signal housing and the switch mode power supply with power factor correction circuitry being an integrated circuit.

Johnson discloses the claimed invention (see above paragraphs) except for the use of a conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist.

Hildebrand discloses that it is known in the art to provide the use of conflict monitor circuit used to help control leakage currents by providing high impedance if such conditions exist. The Hildebrand circuit (see figure 1A) uses a Zener diode (CR5) in combination with transistor (Q2) and that those components correspond to the Zener diode (D5) and the transistor (Q 1) of the claimed clamp circuit's "voltage sensing means". Hildebrand circuit uses a transistor (Q3) in combination with resistor (R7) and that those components correspond to the transistor (Q2) and the resistor (R5) of the claimed conflict monitor circuit's "control load means". Then finally, the circuit when the traffic light is off, thereby preventing leakage current, and that it completely removes this resistor (R7) from the circuit when the light is on. This operation corresponds to that of the claimed conflict monitor circuit, which places the resistor (R5) of its "control load means" in the circuit when the light is off and then completely removes that resistor (R5) from the circuit when the light is on.

The court decisions **63 F. Supp. 2d 788; 1999 U.S. Dist. LEXIS 13116** from page **29**, column 2, second paragraph states *"This undisputed evidence suffices to show that the Hildebrand device is nearly identical in structure and function to the adaptive clamp circuit of claims 5 and 6. First of all, it shows that the Hildebrand device*

*"clamps" within the meaning of the '645 patent, n34 That is, when voltage falls below a certain amount -- the Zener voltage of Hildebrand's Zener diode (CR5) -- that diode does not conduct and the leakage current is directed through resistor (R 7). Hildebrand, 6:23. Likewise, when the '645's voltage falls below a certain amount -- the Zener voltage of its Zener diode (D5) -- that diode does not conduct and [*111] leakage current is directed through resistor (R5). '645, 7:59-62. Second, the undisputed evidence also shows that the Hildebrand device is "adaptive" within the meaning of the '645 patent. When the Hildebrand light is on, its dynamic load circuit removes the resistor (R7), and when its light is off, it places the resistor (R7) in the circuit to clamp leakage. Hildebrand, 6:42-50; (Third Erickson Decl. at PP 33-34)."*

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the device of Johnson in view of Power Supply Cookbook and Motorola data sheet and provide an conflict monitor circuit as taught by Hildebrand, in order to lessen the effects of current leakage inherent to LED circuitry and have a more dynamic response to this recurring problem.

(10) Response to Argument

For the purpose of this Appeal, Appellant has chosen for all the claims to stand and fall with claim 24, therefore no arguments has been presented for the rest of the independent claims (28, 32 and 44).

A. Claim 24 and Its Dependent claims

1. The Claimed Invention Over the Prior Art

Appellant's Claim 24 set forth no structure different from the prior art.

Appellant states on page 10 of the Appeal Brief ;

"The rejection relies on Johnson as disclosing claim 24's a.c. input, rectifier, and switchmode power supply (*supra*, page 3), as well as limitations in the dependent claims. "Applicant's prior art" is relied on as a concession that traffic signals retrofit with LEDs are in the prior art, along with certain limitations in other dependent claims. **For purposes of this appeal, the applicant does not contest those aspects of the rejection.** "

Appellant further states that "Both the applicant's and Hildebrand's circuits shunt leakage currents through a low impedance load in the presence of leakage currents:

Claim 24: the transistor in the essentially conductive condition couples the low impedance load to the electrical input for shunting leakage current from the solid state traffic controller switch when the switch is off.

Hildebrand: the dynamic load circuit achieves its desired purpose of insuring that the power supply presents low impedance to the line power when the power is off, so that external alternating current switch leakage current cannot create appreciable voltages at the input terminals. Col. 6, lines 60-65.

Appellant admits that how Hildebrand and the claim invention handle leakage current when the traffic controller switch is off is the same but the focus here is what happens when the switch is on.

Appellant has reduced the Appeal to the following limitation as stated on pages 11 and 12 of the Appeal Brief:

"The following limitations in claim 24 are the heart of this appeal:

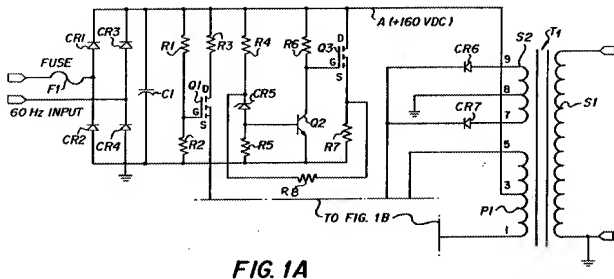
the transistor [in series connection with the low impedance load] being biased as a switch having an essentially nonconductive condition whenever the electrical input voltage is at or above the operating range lower limit voltage..., wherein:

the transistor in the essentially nonconductive condition prevents dissipation of power from the power supply output through the low impedance load whenever the electrical input voltage is within the operating range "

Hildebrand's circuit falls short when the input voltage is within the operating range (as claimed, a voltage "sufficient to activate the LEDs"). The examiner equated Hildebrand's resistor R7 with the applicant's claimed "low impedance load." Office action mailed January 22, 2009, at 5-6. But rather than taking the resistor R7 out of the circuit by virtue of its series connection with a switch-biased transistor, Hildebrand's resistor R7 remains in the circuit and permits dissipation of significant power at operating input voltages.

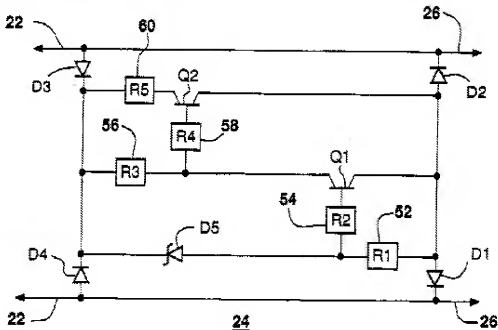
With respect to Appellant allege difference between the claimed invention (claim 24) and the circuit of Hildebrand circuit on pages 11-12 of the brief. Appellant's attention is directed to Fig. 1A uses a Zener (CR5) in combination with transistor (Q2) and that those components corresponds to the Zener diode (D5) and the transistor (Q1) of the claimed invention (Appellant's Fig. 6). Hildebrand circuit uses transistors (Q3) in combination with resistor (R7) and that those components correspond to the transistor

(Q2) and the resistor (R5) of the claimed invention (Appellant's Fig. 6). Hildebrand circuit when the traffic light is off, thereby preventing leakage current and that it completely removes the resistor (R7) for the circuit when the light is on. This operation corresponds to that of the claimed conflict monitor compatibility circuit, which places the resistor (R5) in the circuit when the light is off and then completely removes the resistor (R5) from the circuit when the light is on. Hildebrand Figure 1A



Appellant Figure 6:

FIG - 6b



The court decisions also affirm the above reasoning:

The court decisions **63 F. Supp. 2d 788; 1999 U.S. Dist. LEXIS 13116** from page **29**, column 2, second paragraph states *"This undisputed evidence suffices to show that the Hildebrand device is nearly identical in structure and function to the adaptive clamp circuit of claims 5 and 6. First of all, it shows that the Hildebrand device "clamps" within the meaning of the '645 patent, n34 That is, when voltage fails below a certain amount -- the Zener voltage of Hildebrand's Zener diode (CR5) -- that diode does not conduct and the leakage current is directed through resistor (R 7). Hildebrand, 6:23. Likewise, when the '645's voltage falls below a certain amount -- the Zener voltage*

of its Zener diode (D5) -- that diode does not conduct and ["111] leakage current is directed through resistor (R5). '645, 7:59-62. Second, the undisputed evidence also shows that the Hildebrand device is "adaptive" within the meaning of the '645 patent. When the Hildebrand light is on, its dynamic load circuit removes the resistor (R7), and when its light is off, it places the resistor (R7) in the circuit to clamp leakage. Hildebrand, 6:42-50; (Third Erickson Decl. at PP 33-34)."

Appellant's points to the Hochstein Declaration stating on pages 12-14 of the brief:

This property of Hildebrand's circuit is seen in Exhibit B to the Hochstein Declaration. The second plot in Hochstein Declaration Exhibit B shows that at the lower end of an LED's operating range (say, 85 volts), the Hildebrand circuit dissipates about 4 watts of power. The same plot shows the marked contrast provided by a conflict monitor compatibility circuit in accordance with the applicant's claim 24, which dissipates only about 0.2-0.3 watts at the same voltage. Claim 24 reflects this advantage by reciting that the claimed circuit "prevents dissipation of power from the power supply output through the low impedance load whenever the electrical input voltage is within the operating range."

The amount of power dissipated by Hildebrand's dynamic load circuit makes it particularly unsuitable for use with LEDs. For example, even at a nominal LED operating voltage of 115-120 volts, Hildebrand's circuit consumes about 2.4 watts as compared to about 0.3 watts for the applicant's claimed circuit. Recent LED traffic signals are rated as low as 6 watts. Hochstein Declaration, para. 26 and Exhibit C.

Hildebrand's wasted 2.4 watts is a significant fraction of the entire amount of power needed to operate the LEDs.

The claimed structure that achieves this advantage over Hildebrand is a transistor "biased as a switch having an essentially nonconductive condition whenever the electrical input voltage is at or above the operating range lower limit voltage." In contrast, Hildebrand's MOSFET amplifier Q3, likened by the Examiner to the applicant's claimed transistor biased as a switch, office action mailed January 22, 2009, at 5-6, is conductive at and above the lower limit of a voltage operating range sufficient to activate LEDs. This is shown in the first plot in Hochstein Declaration Exhibit B, which compares the current through the

applicant's claimed low impedance load to the current through Hildebrand's resistor R7. Hochstein Declaration, para. 25. That plot establishes that a circuit in accordance with Hildebrand's disclosure conducts about 53 milliamps at the lower limit of a typical LED operating voltage range, while the applicant's switch-biased transistor limits the wasted current to a virtual-zero three milliamps at the same voltage.

Nor would one of ordinary skill in the art have had any reason at the time of the invention to substitute a switch-biased transistor having the claimed operational properties for Hildebrand's MOSFET amplifier Q3. Hildebrand's dynamic load circuit is used with luminescent tube lamp traffic signals. Hildebrand col. 1, lines 11-33, and col. 6, lines 66-68. The 2.4 watts dissipated through Hildebrand's resistor R7 is a small fraction of the power consumed by luminescent tubes, so there would have been no reason for one ordinarily skilled in the art to seek a way to reduce what is a minimal amount of wasted power for a luminescent tube signal. Hochstein Declaration, para. 27.

Appellant alleges difference between the claimed circuits consumes about 0.3 watts while Hildebrand circuit consumes about 2.4 watts. The Hochstein Declaration has been considered, the information is only partially correct because Appellant only tested the Hildebrand's circuit. Examiner applied Johnson reference (5,463,280) in view of Applicant Prior Art (Fig. 1) and further in view of Hildebrand (5,075,601). Therefore it would be incorrect to test the output of Hildebrand circuit only and make a comparison with Appellant circuit. In response to Appellant' piecemeal analysis of the reference, it has been held the one can't show non-obviousness by attacking references individually where, as here the rejections are based on combination of references. *In re Keller*, 208, USPQ 871 (1981).

Appellant does not claim the circuit consumption watt or values/rating of the elements used in order to challenge the different outputs obtained. Just like Appellant circuit, Hildebrand choice of values was not stated in the specification in order to make claims

of different outputs in the declaration. Even the LED traffic signals are not limited to the 6 watts as stated in the declaration, it could be as low as 22 watts depending on the brand of the LED.

The examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In *re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In *re Simon*, 174 USPQ 114 (CCPA 1972); In *re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In *re Bozek*, 163 USPQ 545 (CCPA 1969).

Accordingly, claim 24 rejection should be sustained.

2. The Examiner Did Not Address Applicant's Claims or Evidence

Appellant states on pages 14-16 on the brief:

Claims very similar to those on appeal were presented in a Preliminary Amendment dated April 13, 2007 (following a request for continued examination dated January 16, 2007). The Hochstein Declaration accompanied the Preliminary Amendment. Those claims were rejected in an office action mailed July 16, 2007. The office action referred to the "claimed clamp circuit's 'voltage sensing means'" and a "control load means," features that had been in original patent claim 6. The claims under examination had no "clamp circuit," no "voltage sensing means," and no "control load means." The office action also referred to language concerning canceled patent claim 6 in the court's opinion in *Relume Corp. v. Dialight Corp.* The office action did not mention the Hochstein Declaration.

In an Amendment dated December 12, 2007, the applicant amended the claims to their present form. The Amendment also requested that the examiner treat the claim language actually presented and noted the differences between the

reissue claims in this appeal and patent claim 6, which had been held invalid by the court (more about which later).

The result was allowance of the application (although still without mention of the Hochstein Declaration), with an examiner's statement of reasons for allowance:

None of the prior art alone or in combination discloses based on applicant's arguments in the response "a conflict monitor compatibility circuit achieves this advantage over Hildebrand (prior art) by using a transistor "biased as a switch having an essentially nonconductive condition whenever the electrical input voltage is at or above the operating range lower limit voltage." Hildebrand's MOSFET Q3, likened by the Examiner to the applicant's transistor biased as a switch is conductive at and above the lower limit of a voltage operating range sufficient to activate LEDs.

Notice of Allowability, mailed February 11, 2008 (emphasis in original)

After the applicant paid the issue fee, the PTO withdrew the application from issue. In an ensuing office action, mailed August 12, 2008, original patent claims 7-23 were rejected (they had been allowed fairly early in the prosecution) over new prior art. The reissue claims, which have not been amended since their allowance, were rejected under reasoning nearly identical to that in the pre-allowance office action. (The examiner's comments on Hildebrand were taken *verbatim* from the previous office action.) As in the previous office action, the examiner referred to the "[nonexistent] claimed clamp circuit's [nonexistent] 'voltage sensing means'" and a "[nonexistent] control load means," and again referred to language concerning patent claim 6 in *Relume Corp. v. Dialight Corp.* Still the examiner did not mention the Hochstein Declaration. Nor did he explain why he changed his position expressed in his statement of reasons for allowance.

The applicant's Response to Office Action dated September 12, 2007, canceled patent claims 7-23. The applicant again requested that the examiner treat the actual claim language and discuss the Hochstein Declaration. The next office action, which is the subject of this appeal, again referred to the "claimed clamp circuit's "voltage sensing means" and the "control load means." There was no mention of the Hochstein Declaration.

If the examiner had considered the Hochstein Declaration, he could not have repeatedly made the following erroneous statement regarding Hildebrand:

Then finally, the [Hildebrand] circuit when the traffic light is off, thereby preventing leakage current and that it completely removes this resistor (R7) from the circuit when the light is on.

Office action mailed July 16, 2007, at 4, 6, and 8; office action mailed August 12, 2008, at 13; office action mailed January 22, 2009, at 3, 6, and 7-8 (emphasis supplied).

Hildebrand Fig. 4 shows that the MOSFET transistor Q3, unlike the claimed "transistor biased as a switch," is conductive at voltages within the operating range of an LED. In addition, the Hochstein Declaration reports tests conducted using the circuit disclosed in Hildebrand. Those tests bear out that at such voltages Hildebrand's resistor R7 remains very much in the circuit, drawing current and dissipating power. Hochstein Declaration, para. 26 and Exhibit B.

From the court's opinion in *Relume Corp. v. Dialight Corp.*, the examiner quotes the portion relating to the applicability of Hildebrand to claim 6 of original U.S. Patent 5,661,645. The claims now presented are very different from claim 6 of the original patent. It is self-evident that the findings of the court relative to canceled patent claim 6 are, at best, of limited probative value in determining the patentability of the reissue claims now under consideration.

Appellant is correct with the filing date of the amendment and similarity of the appeal claims with the amend claims and the allowance of the application and that the Office withdrew the allowance. The office action does refer to the "claimed clamp circuit's "voltage sensing means and a "control load means" as does the court. Appellant is correct.

Appellant alleges difference between the claimed language and the court findings. Appellant's attention is directed to Figs. 6a and 6b of the present application which shows a conflict monitor compatibility circuit (24) which includes a "voltage sensing means (48)" and a "controlled load means (50)" in Fig. 6a and while Fig. 6b shows the detail circuit diagram of the voltage sensing means and controlled load means.

The following limitations in claim 24 are the heart of this appeal:

the transistor (Q2 in Fig. 6b) in series connection with the low impedance load (resistor 60 in Fig. 6b) being biased as a switch having an essentially nonconductive condition whenever the electrical input voltage is at or above the operating range lower limit voltage..., wherein:

the transistor (Q2 is off) in the essentially nonconductive condition prevents dissipation of power from the power supply output through the low impedance load whenever the electrical input voltage (22) is within the operating range (120).... “

FIG - 6a

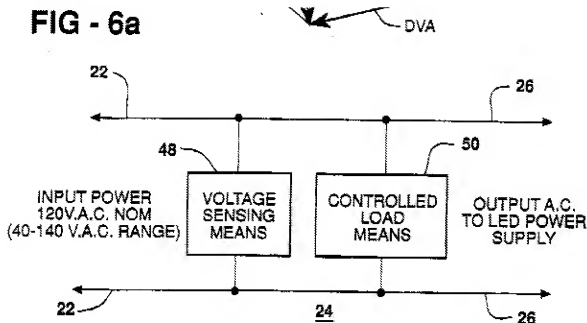
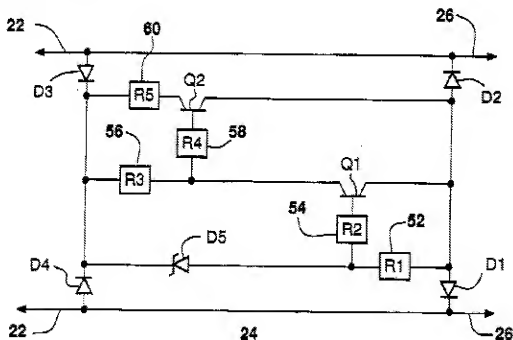


FIG - 6b



Therefore both the rejection and the court decision are directed to the same above limitation which according to the appellant is the heart of the appeal.

Appellant states on pages 17-18 on the brief:

The applicant now claims a conflict monitor compatibility circuit, rather than original claim 6's "adaptive clamp circuit means" with "voltage sensing means" and a "controlled load means." Among the features of the applicant's reissue claims missing from patent claim 6 are an "electrical input voltage having an operating range with a lower limit voltage sufficient to activate the LEDs," a "transistor... biased as a switch having an essentially nonconductive condition whenever the electrical input voltage is at or above the operating range lower limit voltage," and the operational characteristic wherein "the transistor in the essentially nonconductive condition prevents dissipation of power from the power supply output through the low impedance load whenever the electrical input voltage is within the operating range." At least these claim limitations distinguish the applicant's invention over Hildebrand, and none of them are discussed in the court's opinion.

The examiner relies particularly on the court's finding that "[w]hen the Hildebrand light is on, its dynamic load circuit removes the resistor (R7) [from the circuit]." Office action mailed January 22, 2009, at 6. This is true only so far as the resistor is removed when the applied voltage is 140 v.a.c. (See the far right end of the first plot of Exhibit B of the Hochstein Declaration, where the current through the resistor is almost as low as the level obtained by the applicant's claimed circuit.) However, as shown in this plot and discussed above, Hildebrand's resistor R7 is not removed from the circuit "whenever the electrical input voltage is at or above the operating range lower limit voltage [sufficient to activate an LED]." Thus, the court's opinion in fact has no bearing on the patentability of the present claims.

Finally, the court suggests that its conclusion concerning the invalidity of claim 6 might have been different if the claim had recited the reduced power dissipation achieved by the applicant's circuit. 63 F.Supp.2d at 825. In contrast, claim 24 does recite the prevention of power dissipation as a feature of the applicant's conflict monitor compatibility circuit.

Appellant alleges difference between the claimed language "conflict monitor compatibility circuit and original claim 6's "adaptive clamp means" and "voltage sensing means" and a "controlled load means". If Appellant alleges such a difference, then appellant needs to provide support for such a difference. Since the original patent doesn't make such a distinction or provide wording such as "conflict monitor compatibility circuit" it would be new matter if appellant chooses to give a different

definition. For the purpose of the appeal the conflict monitor compatibility circuit is an adaptive clamp means (which is a voltage sensing means and a controlled load means).

Therefore the court decision is still valued for the appeal claims.

Accordingly, claim 24 rejection should be sustained.

B. Claims 28 and 32 and Their Dependent Claims

Appellant states on page 18 of the brief that for the purposes of this appeal, these claims will stand or fall with claim 24.

C. Claim 44 and Its Dependent Claims

Appellant states on page 18 of the brief that for the purposes of this appeal, these claims will stand or fall with claim 24.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Adolf Berhane/
Adolf Berhane
Primary Examiner
Art Unit 2838

Conferees:

Jayprakash N Gandhi

/Jayprakash N Gandhi/
Supervisory Patent Examiner, Art Unit 2835

Tulsidas Patel
/T C Patel/
Supervisory Patent Examiner, Art Unit 2839